



# United Nations Environment Programme

Distr. GENERAL

UNEP/OzL.Pro/ExCom/85/36 24 April 2020

ORIGINAL: ENGLISH

EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Eighty-fifth Meeting
Montreal, 25-29 May 2020
Postponed to 19-22 July 2020\*

#### PROJECT PROPOSAL: MADAGASCAR

This document consists of the comments and recommendation of the Secretariat on the following project proposal:

#### Phase-out

• HCFC phase-out management plan (stage I, fifth tranche)

**UNEP and UNIDO** 

<sup>\*</sup> Due to coronavirus disease (COVID-19)

## PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

## Madagascar

(I) PROJECT TITLE	AGENCY	MEETING APPROVED	CONTROL MEASURE	
HCFC phase-out plan (Stage I)	UNEP (lead), UNIDO	62 <sup>nd</sup>	35% by 2020	

(II) LATEST ARTICLE 7 DATA (Annex C Group l)	Year: 2018	10.40 (ODP tonnes)
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(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)									Year: 2018
Chemical	Aerosol	Foam	Fire fighting	Refrigeration		Solvent	Process agent	Lab use	Total sector consumption
			Manufacturing	Servicing					
HCFC-22					10.40				10.40

(IV) CONSUMPTION DATA (ODP tonnes)							
2009 - 2010 baseline:	24.90	Starting point for sustained aggregate reductions:	17.10				
CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)							
Already approved:	6.00	Remaining:	11.10				

(V) BUSINESS PLA	AN	2020	Total
UNEP	ODS phase-out (ODP tonnes)	0.6	0.6
	Funding (US \$)	63,280	63,280
UNIDO	ODS phase-out (ODP tonnes)	0.0	0.0
	Funding (US \$)	0	0

(VI) PROJEC	T DATA		2010- 2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
Montreal Proto	Montreal Protocol consumption limits			24.9	24.9	22.41	22.41	22.41	22.41	22.41	16.18	n/a
Maximum allowable consumption (ODP tonnes)			n/a	17.1	17.1	15.4	15.4	15.4	15.4	15.4	11.1	n/a
Agreed	UNEP	Project costs	70,000	70,000	0	0	60,000	0	44,000	0	56,000	300,000
funding (US\$)		Support costs	9,100	9,100	0	0	7,800	0	5,720	0	7,280	39,000
	UNIDO	Project costs	140,000	0	0	0	120,000	0	0	0	0	260,000
		Support costs	10,500	0	0	0	9,000	0	0	0	0	19,500
1 1	Funds approved by		210,000	70,000	0	0	180,000	0	44,000	0	0	504,000
ExCom (US\$)		Support costs	19,600	9,100	0	0	16,800	0	5,720	0	0	51,220
Total funds req		Project costs	0	0	0	0	0	0	0	0	56,000	56,000
for approval at meeting (US\$)	this	Support costs	0	0	0	0	0	0	0	0	7,280	7,280

Secretariat's recommendation: Blanket approval
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#### PROJECT DESCRIPTION

1. On behalf of the Government of Madagascar, UNEP as the lead implementing agency, has submitted a request for funding for the fifth and final tranche of stage I of the HCFC phase-out management plan (HPMP), at the amount of US \$56,000, plus agency support costs of US \$7,280 for UNEP only. The submission includes a progress report on the implementation of the fourth tranche, the verification report on HCFC consumption for 2013 to 2019 and the tranche implementation plan for 2020 to 2021.

#### Report on HCFC consumption

2. The Government of Madagascar reported, as per the verification report, a consumption of 9.63 ODP tonnes of HCFC in 2019, which is 61.3 per cent below the HCFC baseline for compliance and 37.5 per cent below the maximum allowable consumption in its Agreement with the Executive Committee. The 2015-2019 HCFC consumption is shown in Table 1.

Table 1. HCFC consumption in Madagascar (2015-2019 Article 7 data)

HCFC-22	2015	2016	2017	2018	2019*	Baseline
Metric tonnes	255.00	215.00	195.00	189.09	175.00	452.70
ODP tonnes	14.03	11.83	10.73	10.40	9.63	24.90

<sup>\*</sup>Data from the verification report on HCFC consumption.

3. HCFC-22, which is used in the servicing and maintenance of refrigeration and air-conditioning (RAC) equipment, has been decreasing since 2013 mainly due to implementation of HPMP activities *inter alia* HCFC consumption controls through national regulations; training on good RAC equipment servicing practices; awareness and outreach campaigns on HCFC consumption reduction activities; and adoption of alternatives to HCFC (e.g., HFC-134a, R-404A, R-410A, R-407C) in RAC applications.

### Country programme (CP) implementation report

4. The Government of Madagascar reported HCFC sector consumption data under the 2018 CP implementation report which is consistent with the data reported under Article 7 of the Montreal Protocol; 2019 CP data report is expected to be submitted in April 2020.

#### Verification report

- 5. The verification report confirmed that the Government is implementing a an effective imports and exports licensing and quota system that ensures the country's compliance with HCFC phase-out targets; that the total consumption of HCFCs reported under Article 7 of the Montreal Protocol for 2013 to 2019 was correct (as shown in Table 1 above); and that Madagascar is compliant with its targets in its Agreement with the Executive Committee for those years.
- 6. The verification also recommends continuation of capacity building of customs and enforcement officers on HCFC import monitoring, providing additional equipment for analysing refrigerants to customs offices, making training modules of new refrigerants available to referral centres<sup>2</sup> and training school, and expanding referral centres to other regions of the country. UNEP confirmed that all the recommendations by the verifier would be taken into consideration during implementation of the fifth tranche of stage I and stage II of the HPMP.

<sup>&</sup>lt;sup>1</sup> As per the letter of 25 February 2020 from the Ministère de l'Environnement et du Développement Durable of Madagascar to the Secretariat.

<sup>&</sup>lt;sup>2</sup> Large service enterprises that provide training to service sector.

#### Progress report on the implementation of the fourth tranche of the HPMP

#### Legal framework

7. The Government implements its laws and regulations to control the entry, sale and resale, and use of refrigerants and refrigerant equipment. The country has an operational online import license system under the Department and Control Agency (MIDAC), which provides for the electronic issuance of import authorizations for HCFCs and HCFC-based equipment; the Ministry of Trade manages import and exports of HCFCs based on licenses issued through MIDAC; the maximum allowed quantities of HCFCs to be imported will be set upon advice from the national ozone unit (NOU). The Government plans to implement a ban on import of equipment containing HCFCs by 1 January 2025.

#### Refrigeration servicing sector

- 8. The following activities have been conducted:
  - (a) Four training workshops for 107 customs officers on identification and control of HCFCs and monitoring of the licensing and quota system;
  - (b) Seven training workshops for 190 refrigeration technicians on good practices in the servicing of HCFC-based RAC equipment and safe handling of hydrocarbon (HC)-based refrigerants and standards; and
  - (c) Incentive programme covering beneficiaries from sectors such as commercial banking, gas distribution, hotels; 38 air-conditioning units using HC-based refrigerants were distributed to the beneficiaries with co-financing of about 15 per cent of the equipment cost.

#### *Project implementation and monitoring unit (PMU)*

9. The NOU is responsible for coordinating and managing the HPMP, including the preparation and implementation of national legislation to control and manage ODS imports, exports and consumption. The NOU recruited two consultants to assist with data collection, implementation of training programmes for refrigeration service technicians and for enforcement officers in coordination with customs, and report on the implementation of the HPMP. The PMU expenditures amount to US \$30,000 for staff and consultant expenses and US \$7,000 for travel; this is less than the funding of US \$80,000 allocated for the PMU.

#### Level of fund disbursement

10. As of February 2020, of the US \$504,000 approved so far, US \$487,991 had been disbursed (US \$234,000 for UNEP and US \$253,991 for UNIDO) as shown in Table 2. The balance of US \$16,009 will be disbursed by December 2020.

Table 2. Financial report of stage I of the HPMP for Madagascar (US \$)

Tranche		UNEP	UNIDO	Total	Disbursement rate (%)
Direct	Approved	70,000	140,000	210,000	100
First	Disbursed	70,000	138,434*	208,434*	100
Second	Approved	70,000	0	70,000	100
Second	Disbursed	70,000	0	70,000	100
Third	Approved	60,000	120,000	180,000	97.5
Tillia	Disbursed	60,000	115,557	175,557	97.3
Fourth	Approved 44,00		0	44,000	77.3
	Disbursed	34,000	0	34,000	17.3

Tranche		UNEP UNIDO		Total	Disbursement rate (%)	
Total	Approved	244,000	260,000	504,000	97.1	
Total	Disbursed	234,000	253,991*	487,991*	97.1	

<sup>\*</sup> The balance amounting to US \$1,566 was returned in 2019.

#### Implementation plan for the fifth and final tranche of the HPMP

- 11. The following activities will be implemented between July 2020 and December 2021:
  - (a) Four workshops for 80 customs officers, 10 trade officers and 10 environmental inspectors on the control and identification of ODS and ODS-based equipment (UNEP) (US \$25,000);
  - (b) Five workshops for 125 RAC technicians on the implementation of good service practices, refrigerant recovery and reuse techniques, and the safe handling of HC-based refrigerants (UNEP) (US \$25,000); and
  - (c) Project management unit (UNEP) (US \$6,000): monitoring implementation of HPMP activities and reporting on progress; funding includes US \$4,000 for staff expenses and for two consultants that will continue providing support to the NOU, and US \$2,000 for travel.

#### SECRETARIAT'S COMMENTS AND RECOMMENDATION

#### **COMMENTS**

Progress report on the implementation of the fourth tranche of the HPMP

#### Legal framework

12. The Government of Madagascar has already issued HCFC import quotas for 2020 of 9.35 ODP tonnes (170 mt) to 11 importers, which is 42 per cent and 16 per cent below the allowable levels of consumption under the Montreal Protocol and under its Agreement with the Executive Committee, respectively, for that year.

## Refrigeration servicing sector

- 13. The Secretariat requested additional information on the lower number of equipment procured (38 units) under the incentive scheme than that proposed under the HPMP (100 units), and the expected impact on the implementation of the scheme. UNIDO explained that as the manufacturers were not willing to supply these equipment, the equipment had to be purchased from a reseller at a higher cost than that previously estimated; however, the beneficiaries from sectors such as commercial banking, gas distribution, and hotels, participated in the scheme and co-financed about 15 per cent of the equipment cost. The Government is making all attempts to encourage all users to consider switching to HC-based RAC equipment, and will continue providing training programmes on safe management of flammable refrigerants. It is expected that these actions will increase adoption of HC-based refrigerants in new equipment in the RAC sector.
- 14. On retrofit of RAC equipment with flammable refrigerants, UNEP informed that while there is no regulation yet prohibiting these practices, the NOU strongly discourages such practices. Furthermore, no retrofit activities have been included under the HPMP; supported training programmes and awareness raising campaigns strongly advise against retrofitting using flammable refrigerants; and while equipment is not being retrofitted with flammable refrigerants, the Government is aware of decisions 72/17 and 73/34

on retrofits. The vocational training institutes have conducted trainings on installation and servicing of HC-based air-conditioners focusing on the safety aspects for new HC-based equipment.

## Gender policy implementation<sup>3</sup>

15. UNEP informed that the Government of Madagascar, UNEP and UNIDO, are fully committed to implementing the gender policy. So far, there are 10 female practitioners in RAC servicing who received training; the Government plans to train at least two female trainers in RAC servicing and to encourage participation of female practitioners in RAC training during implementation of the HPMP. In addition, 65 female enforcement officers, including two trainers, were trained under customs and enforcement training programmes.

#### Sustainability of the HCFC phase-out

16. The Government is taking steps to build the capacity of technical institutions and large service enterprises that serve as referral centres for providing training to technicians on good service practices and safe adoption of flammable alternatives. The training and capacity building of customs officers is an ongoing activity, being implemented in cooperation with the Customs authorities. The Government has been implementing an online licensing and quota system and controlling and monitoring HCFCs in line with the country's commitments under the Montreal Protocol. The Government is also planning additional regulations to reduce dependence on HCFCs, such as a ban on import of equipment containing HCFCs by 1 January 2025; and undertaking awareness and outreach programmes for adoption of HCFC-free alternatives and promoting adoption of low-global-warming-potential (GWP) alternatives in a safe manner through an incentive programme and relevant training. With these measures, the Government would be able to achieve sustainable HCFC phase-out in the country.

#### Conclusion

The country is in compliance with the Montreal Protocol and its Agreement with the Executive Committee. The licensing and quota system for HCFCs is operational. The HCFC consumption in 2019 of 9.63 ODP tonnes is already 37.5 per cent below the Agreement targets for that year, and 61.3 per cent below the baseline for compliance. The training programmes for service technicians and for customs and enforcement officers are being implemented in a satisfactory manner. The end-user incentive programme was implemented with co-financing from beneficiaries and efforts were taken to promote adoption of low-GWP alternatives. The level of disbursement is more than 95 per cent of the total funding so far approved. Activities to be implemented during the fifth and final tranche will ensure satisfactory achievement of stage I targets and the long-term sustainability of HCFC phase-out. The country will complete stage I of the HPMP in accordance with the Agreement with the Executive Committee and plans to submit its stage II in 2021.

#### RECOMMENDATION

18. The Fund Secretariat recommends that the Executive Committee takes note of the progress report on the implementation of the fourth tranche of stage I of the HCFC phase-out management plan of (HPMP) for Madagascar; and further recommends blanket approval of the fifth and final tranche of stage I of the HPMP for Madagascar, and the corresponding 2020-2021 tranche implementation plan, at the funding level shown in the table below:

<sup>&</sup>lt;sup>3</sup> Decision 84/92(d) requested bilateral and implementing agencies to apply the operational policy on gender mainstreaming throughout the project cycle.

Ī		Project title	Project funding	Support cost	Implementing	
			(US \$)	(US \$)	agency	
ſ	(a)	HCFC phase-out management plan (stage I, fifth tranche)	56,000	7,280	UNEP	